

GenCore version 5.1.4.p5.4578  
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OM protein - protein search, using sw model

Run on: May 19, 2003, 16:35:42 ; Search time 55,5395 Seconds  
(without alignments)  
897.302 Million cell updates/sec

Title: US-09-625-573-2  
Perfect score: 1970  
Sequence: 1 MLTSRSRFRINTNESGEV.....GKGKSGRAPEASLQDKEGA 374

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 908470 seqs, 133250620 residues  
Total number of hits satisfying chosen parameters: 908470

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : A\_Geneseq\_101002.\*  
1: /SID52/gcgdata/geneseq/geneseqp-emb1/AA1980.DAT.\*  
2: /SID52/gcgdata/geneseq/geneseqp-emb1/AA1981.DAT.\*  
3: /SID52/gcgdata/geneseq/geneseqp-emb1/AA1982.DAT.\*  
4: /SID52/gcgdata/geneseq/geneseqp-emb1/AA1983.DAT.\*  
5: /SID52/gcgdata/geneseq/geneseqp-emb1/AA1984.DAT.\*  
6: /SID52/gcgdata/geneseq/geneseqp-emb1/AA1985.DAT.\*  
7: /SID52/gcgdata/geneseq/geneseqp-emb1/AA1986.DAT.\*  
8: /SID52/gcgdata/geneseq/geneseqp-emb1/AA1987.DAT.\*  
9: /SID52/gcgdata/geneseq/geneseqp-emb1/AA1988.DAT.\*  
10: /SID52/gcgdata/geneseq/geneseqp-emb1/AA1989.DAT.\*  
11: /SID52/gcgdata/geneseq/geneseqp-emb1/AA1990.DAT.\*  
12: /SID52/gcgdata/geneseq/geneseqp-emb1/AA1991.DAT.\*  
13: /SID52/gcgdata/geneseq/geneseqp-emb1/AA1992.DAT.\*  
14: /SID52/gcgdata/geneseq/geneseqp-emb1/AA1993.DAT.\*  
15: /SID52/gcgdata/geneseq/geneseqp-emb1/AA1994.DAT.\*  
16: /SID52/gcgdata/geneseq/geneseqp-emb1/AA1995.DAT.\*  
17: /SID52/gcgdata/geneseq/geneseqp-emb1/AA1996.DAT.\*  
18: /SID52/gcgdata/geneseq/geneseqp-emb1/AA1997.DAT.\*  
19: /SID52/gcgdata/geneseq/geneseqp-emb1/AA1998.DAT.\*  
20: /SID52/gcgdata/geneseq/geneseqp-emb1/AA1999.DAT.\*  
21: /SID52/gcgdata/geneseq/geneseqp-emb1/AA2000.DAT.\*  
22: /SID52/gcgdata/geneseq/geneseqp-emb1/AA2001.DAT.\*  
23: /SID52/gcgdata/geneseq/geneseqp-emb1/AA2002.DAT.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1970	100.0	374	16 AAR79165	Human monocyte che
2	1970	100.0	374	22 AAG80107	Human CCR2a protei
3	1727.5	87.7	329	22 AAB46859	Human MCP-1 recept
4	1651.5	83.8	360	16 AAR79166	Human monocyte che
5	1651.5	83.8	360	18 AAR35833	Human monocyte che
6	1651.5	83.8	360	22 AAG80108	Human CCR2b protei
7	1651.5	83.8	360	22 AAU07614	Human wild-type CC
8	1650.5	83.8	360	22 AAU07613	Human CCR2-6A1 pol
9	1645.5	83.5	360	22 ABB56340	Non-endogenous hum
10	1236	62.7	352	22 AAG79089	Amino acid sequenc

11	1234	62.6	354	19 AAW54037	Mouse CC-CR5 prot
12	1224	62.1	352	18 AAW27407	Human CCR5. Homo
13	1224	62.1	352	18 AAW27123	Human chemokine re
14	1224	62.1	352	18 AAW27125	Macaque chemokine
15	1224	62.1	352	19 AAW23835	Human CC chemokine
16	1224	62.1	352	20 AAW88232	HIV-1 co-receptor
17	1224	62.1	352	22 AAG80111	Human CCR5 protein
18	1224	62.1	352	22 AAB82948	Human HIV-1 co-rec
19	1224	62.1	352	22 AAE07039	Human G-protein ch
20	1224	62.1	352	22 AAE07048	Human G-protein ch
21	1224	62.1	352	22 AAB83354	Human CCR5 protein
22	1224	62.1	352	22 AAE04321	Human chemokine re
23	1224	62.1	352	22 AAB46858	Human HDGMR10 prot
24	1224	62.1	352	22 AAB46858	Human G-protein ch
25	1224	62.1	352	23 AAB08343	Human chemokine (C
26	1224	62.1	352	23 AAM52828	Human CC chemokine
27	1224	62.1	439	20 AAY41280	Fusion protein con
28	1219.5	61.9	371	19 AAW23834	Human CC chemokine
29	1218	61.8	352	22 ABB56342	Non-endogenous hum
30	1218	61.8	352	23 AAM52829	Human CCR5 Gln 55
31	1215	61.7	352	18 AAW07602	Human G-protein ch
32	1215	61.7	352	21 AAY80128	Human G-protein ch
33	1215	61.7	352	22 AAE07037	Human G-protein ch
34	1215	61.7	352	22 AAE07046	Human G-protein ch
35	1215	61.7	352	23 AAU07150	Human G-protein ch
36	1195.5	60.7	332	18 AAR26766	Human chemokine re
37	967.5	49.1	355	15 AAR52749	C-C chemokine rece
38	967.5	49.1	355	18 AAW26588	Human MIP-1 alpha/R
39	967.5	49.1	355	18 AAW25751	Human CC-chemokine
40	967.5	49.1	355	21 AAB20571	Rat CC chemokine r
41	920.5	46.7	355	18 AAW29179	Human C-C chemokin
42	897.5	45.6	355	19 AAW51744	CC-chemokine recep
43	890.5	45.2	355	17 AAW03376	Human C-C chemokin
44	890.5	45.2	355	18 AAW10100	Human C-C chemokin
45	890.5	45.2	355	23 ABB07733	Human C-C chemokin

ALIGNMENTS

RESULT 1  
AAR79165  
ID AAR79165 standard; Protein; 374 AA.  
XX  
AC AAR79165;  
XX  
DT 29-DEC-1995 (first entry)  
XX  
DE Human monocyte chemoattractant protein-1 receptor MCP-1RA.  
XX  
KW Monocyte chemoattractant protein-1 receptor; MCP-1R; chemokine.  
XX  
OS Homo sapiens.  
XX  
FH Key Location/Qualifiers  
FT Domain 49..70 /label= transmembrane  
FT Domain 80..700 /label= transmembrane  
FT Domain 115..136 /label= transmembrane  
FT Domain 154..178 /label= transmembrane  
FT Domain 204..231 /label= transmembrane  
FT Domain 244..268 /label= transmembrane  
FT Domain 295..313 /label= transmembrane  
FT Region 314..375 /label= transmembrane  
FT Domain 1..48 /label= carboxyl tail  
FT /label= extracellular

XX WO9519436-A.  
 XX 20-JUL-1995.  
 XX 11-JAN-1995; 95WO-0500476.  
 XX 13-JAN-1994; 94US-0182962.  
 XX (REGC ) UNIV CALIFORNIA.  
 XX Charo I, Coughlin S;  
 XX WPI; 1995-263866/34.  
 XX N-PSDB; AAQ96297.  
 XX  
 XX DNA encoding monocyte chemo-attractant protein-1 receptor - used part.  
 XX for identifying antagonists and for treating diseases characterised by  
 XX monocyte infiltrates  
 XX  
 XX Claim 2; Fig 1; 84pp; English.  
 XX  
 XX To identify and clone new members of the chemokine receptor gene  
 XX family, degenerate oligo primers were designed corresp. to the  
 XX conserved sequences R79167 in the second and R79168 in the third  
 XX transmembrane domains of the MIP-1alpha/RANTES receptor, the IL-8  
 XX receptors and the HUMSTRS orphan receptor (GenBank Accession #M99293.  
 XX The degenerate oligo incorporating EcoRI and XhoI sites at their 5'-  
 XX ends are Q96299 and Q96300. Amplification of cDNA derived from MM6  
 XX cells with the primers yielded a number of PCR products. One cDNA  
 XX appeared to encode a novel protein. To obtain a full-length version  
 XX of this clone, a MM6 cDNA library was constructed in pFROG and probed  
 XX with the PCR product. A 2.1 kb cDNA clone was obtained. Analysis of  
 XX additional clones in the MM6 cDNA library revealed a second  
 XX sequence that was identical to the 2.1 kb cDNA sequence first obtd.  
 XX from the 5' UTR through the putative seventh transmembrane domain  
 XX but contained a different cytoplasmic tail. The second sequence  
 XX appears to represent alternative splicing of the carboxyl-terminal  
 XX tail of the MCP-1R protein. The two sequences are denoted MCP-1RA  
 XX and MCP-1RB (see Q96297/R79165 & Q96298/R79166). Active mature  
 XX MCP-1RA has a predicted mol. wt. of about 42,000 daltons. MCP-1RB  
 XX has a mol. wt. of about 41,000 daltons.  
 XX  
 XX Sequence 374 AA;

Query Match 100.0%; Score 1970; DB 16; Length 374;  
 Best Local Similarity 100.0%; Pred. No. 2.1e-216;  
 Matches 374; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 1 MLSTSRFRIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIQFVGN 60  
 1 MLSTSRFRIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIQFVGN 60  
 61 MLVLLINCKKLCITDIYLLNLAIISDLLFLITPLWAHSAANEWFVGNAMCKLFTGLY 120  
 61 MLVLLINCKKLCITDIYLLNLAIISDLLFLITPLWAHSAANEWFVGNAMCKLFTGLY 120  
 121 HIGYFGGFIIFLLTIDYLAIVHAFAVEALKARTVFGVVTWITWLVAVFASVPGIIFTK 180  
 121 HIGYFGGFIIFLLTIDYLAIVHAFAVEALKARTVFGVVTWITWLVAVFASVPGIIFTK 180  
 181 COKEDSVVCGPYFPRGNWNEFTIMRNILGLVPLLIIMVICYSGILKTLRCRNEKKRHR 240  
 181 COKEDSVVCGPYFPRGNWNEFTIMRNILGLVPLLIIMVICYSGILKTLRCRNEKKRHR 240  
 241 AVRLEITMIYVFLFWTPYNTVILLNTFQEFGLSNCESTSQDQATQVTTGLMTHCCI 300  
 241 AVRLEITMIYVFLFWTPYNTVILLNTFQEFGLSNCESTSQDQATQVTTGLMTHCCI 300  
 301 NPIIYAVGKFRSLFHIALGCRITAPLQKPVCGGPGVPRGNVKTWTOGLLDGRKGKSI 360  
 301 NPIIYAVGKFRSLFHIALGCRITAPLQKPVCGGPGVPRGNVKTWTOGLLDGRKGKSI 360

QY 361 GRAPEASLQDKEGA 374  
 DB 361 GRAPEASLQDKEGA 374  
 RESULT 2  
 AAG80107  
 ID AAG80107 standard; Protein; 374 AA.  
 XX AAG80107;  
 XX 17-JAN-2002 (first entry)  
 XX Human CCR2a protein.  
 XX  
 XX Chemokine; tumour diagnosis; colorectal; prostatic; organ rejection;  
 XX inflammation; autoimmune disease; metastasis; bronchial asthma; lupus;  
 XX chronic bowel inflammation; rheumatoid arthritis; cytostatic;  
 XX antiinflammatory; antiasthmatic; immunosuppressive; dermatological;  
 XX antirheumatic; antiarthritic.  
 XX Homo sapiens.  
 XX WO200172830-A2.  
 XX 04-OCT-2001.  
 XX 02-APR-2001; 2001WO-EP03708.  
 XX 31-MAR-2000; 2000DE-1016013.  
 XX (IPFP-) IPF PHARM GMBH.  
 XX (FORS/) FORSSMANN U.  
 XX Forssmann W, Adermann K, Heitland A, Spodsborg N;  
 XX WPI; 2001-626256/72.  
 XX Diagnostic agent containing two or more receptor-specific ligands,  
 XX useful for detecting tumors, inflammation etc., also therapeutic use of  
 XX ligand inhibitors  
 XX Disclosure; Page 9; 26pp; German.

This invention describes a novel diagnostic agent (A) comprising at least two different ligands (I) for receptors (II) that are implicated in disease. (A) are used for the diagnosis of tumors (especially colorectal or prostatic), organ rejection, inflammation and autoimmune diseases. Also inhibitors of (I) are used therapeutically against tumors (and their metastases), inflammation (particularly bronchial asthma or chronic bowel inflammation), or autoimmune diseases (rheumatoid arthritis or lupus), where the (cardio)vascular, lymphatic, respiratory, nervous, digestive, endocrine, motor or urogenital systems or skin are affected, and bone marrow diseases. The products of the invention are chemokine derivatives which have cytostatic, antiinflammatory, antitumor, antisthmatic, immunosuppressive, dermatological, antirheumatic, antiarthritic. Chemokines act on specific tumor and inflammatory cells through a constellation of chemokine receptors (CR), which control migration and proliferation of these cells. AAG80045-AAG80128 represent human chemokine fragments used to illustrate the method of the invention.

Query Match 100.0%; Score 1970; DB 22; Length 374;  
 Best Local Similarity 100.0%; Pred. No. 2.1e-216;  
 Matches 374; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 1 MLSTSRFRIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIQFVGN 60  
 1 MLSTSRFRIRNTNESGEEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIQFVGN 60  
 61 MLVLLINCKKLCITDIYLLNLAIISDLLFLITPLWAHSAANEWFVGNAMCKLFTGLY 120  
 61 MLVLLINCKKLCITDIYLLNLAIISDLLFLITPLWAHSAANEWFVGNAMCKLFTGLY 120

Db 61 MLVLLINCKKCLTDIYLLNLAISSDLLFLITPLWAHSAANEWVFGNAMCKLFTGLY 120  
 Qy 121 HIGVGGIIFILLIDYLAIVHAFALKARTVFGVVTSVITLWLVAFASVPGIIFTK 180  
 Db 121 HIGVGGIIFILLIDYLAIVHAFALKARTVFGVVTSVITLWLVAFASVPGIIFTK 180  
 Qy 181 CQKEDSVVCGPYPRGWNNEHTIMRNILGLVPLLMVICYSGILKTLRLCRNEKKRHR 240  
 Db 181 CQKEDSVVCGPYPRGWNNEHTIMRNILGLVPLLMVICYSGILKTLRLCRNEKKRHR 240  
 Qy 241 AVRVTIMVYFLEWTPYINIVILLNTFQEFFGLSNCESTSDQATQVETLGMTHCCI 300  
 Db 241 AVRVTIMVYFLEWTPYINIVILLNTFQEFFGLSNCESTSDQATQVETLGMTHCCI 300  
 Qy 301 NPIIYAFVGEKFRSLFHALGCRAPLOKPVCGGPGVRGKNVKTTCGLDGRGKRSI 360  
 Db 301 NPIIYAFVGEKFRSLFHALGCRAPLOKPVCGGPGVRGKNVKTTCGLDGRGKRSI 360  
 Qy 361 GRAPEASLQDKEGA 374  
 Db 361 GRAPEASLQDKEGA 374

# RESULT 3 AAB46859

ID AAB46859 standard; Protein; 329 AA.

XX AAB46859;

DT 16-AUG-2001 (updated)

DT 02-AUG-2001 (updated)

DT 04-MAY-2001 (first entry)

XX Human MCP-1 receptor protein fragment.

XX HDGMR10; human; G-protein chemokine receptor; antiinflammatory;  
 KW immunomodulatory; anticoagulant; antiallergic; immunosuppressive;  
 KW cystostatic; antiparasitic; antipsoriatic; antirheumatic; antiarthritic;  
 KW vasotropic; gene therapy; haematopoiesis; wound healing; coagulation;  
 KW angiogenesis; solid tumour; infection; leukemia; growth factor activity;  
 KW T-cell mediated autoimmune disease; psoriasis; allergy; atherogenesis;  
 KW anaphylaxis; malignancy; inflammation; histamine; IgE; silicosis; shock;  
 KW immunoglobulin E-mediated allergic reaction; rheumatoid arthritis;  
 KW prostaglandin-independent fever; bone marrow failure; sarcoidosis;  
 KW hyper-eosinophilic syndrome; vulnerability.

XX Homo sapiens.

XX US2001000241-A1.

XX 12-APR-2001.

XX 29-NOV-2000; 2000US-0725285.

XX 06-JUN-1995; 95US-0466343.

XX 18-NOV-1998; 98US-0195662.

XX 25-JUN-1999; 99US-0339912.

XX (LIYY/) LI Y.

XX (RUBE/) RUBEN S M.

XX Li Y, Ruben SM;

XX WPI; 2001-226317/23.

XX New human G-protein chemokine receptor polypeptides and  
 PT polynucleotides, useful for identifying (antagonists to the G-protein  
 PT chemokine receptor -

XX Disclosure; Page 16-17; 22pp; English.

XX This invention describes a novel receptor polypeptide (I) selected from  
 CC (i) a fully defined 329 amino acid sequence (II) fully disclosed in the

CC specification; and (ii) a polypeptide encoded by the cDNA contained in a  
 CC plasmid, and fragments, analogs and derivatives of the polypeptide. The  
 CC products of the invention have antiinflammatory, immunomodulatory,  
 CC anticoagulant, antiallergic, immunosuppressive, vulnerary, cytostatic,  
 CC antiparasitic, antipsoriatic, antirheumatic, antiarthritic and vasotropic  
 CC activity and can be used for gene therapy. The G-protein chemokine  
 CC receptors, HDGMR10, (I) are useful for screening for compounds which  
 CC activate or inhibit activation of (I). The products of the invention can  
 CC also be used for stimulating haematopoiesis, wound healing, coagulation,  
 CC angiogenesis, treating solid tumours, chronic infections, leukemia, and  
 CC T-cell mediated autoimmune diseases, parasitic infections, psoriasis, and  
 CC stimulating growth factor activity. HDGMR10 is useful for treating  
 CC allergy, atherogenesis, anaphylaxis, malignancy, chronic and acute  
 CC inflammation, histamine and immunoglobulin E (IgE)-mediated allergic  
 CC reactions, prostaglandin-independent fever, bone marrow failure,  
 CC silicosis, sarcoidosis, rheumatoid arthritis, shock and  
 CC hyper-eosinophilic syndrome.  
 CC (N.B. This record was resubmitted to correct errors in the keyword  
 CC formatting).

XX SQ Sequence 329 AA;

Query Match 87.7%; Score 1727.5; DB 22; Length 329;

Best Local Similarity 95.6%; Pred. No. 9.7e-189;

Matches 329; Conservative 0; Mismatches 0; Indels 15; Gaps 1;

Qy 18 EEVTFEDYDYGAPCHKFDVKQIGAOQLLPYSLVTFEGVGNMVLVLLINCKKLKCLT 77  
 Db 1 EEVTFEDYDYGAPCHKFDVKQIGAOQLLPYSLVTFEGVGNMVLVLLINCKKLKCLT 60  
 Qy 78 DIYLLNLAISSDLLFLITPLWAHSAANEWVFGNAMCKLFTGLYHIGYFGIIFILLTID 137  
 Db 61 DIYLLNLAISSDLLFLITPLWAHSAANEWVFGNAMCKLFTGLYHI----- 105

Qy 138 RYLAIVHAFALKARTVFGVVTSVITLWLVAFASVPGIIFTCQKEDSVVCGPYPRG 197  
 Db 106 RYLAIVHAFALKARTVFGVVTSVITLWLVAFASVPGIIFTCQKEDSVVCGPYPRG 165

Qy 198 WNNFHTIMRNILGLVPLLMVICYSGILKTLRLCRNEKKRHRVAVIFIMIVYFLWT 257  
 Db 166 WNNFHTIMRNILGLVPLLMVICYSGILKTLRLCRNEKKRHRVAVIFIMIVYFLWT 225

Qy 258 PYNIVILLNTFQEFFGLSNCESTSDQATQVETLGMTHCCINPIIYAFVGEKFRSLFH 317  
 Db 226 PYNIVILLNTFQEFFGLSNCESTSDQATQVETLGMTHCCINPIIYAFVGEKFRSLFH 285

Qy 318 IALGCRITAPLOKPVCGGPGVRGKNVKTTCGLDGRGKRSIG 361

Db 286 IALGCRITAPLOKPVCGGPGVRGKNVKTTCGLDGRGKRSIG 329

## RESULT 4

AAR79166

ID AAR79166 standard; Protein; 360 AA.

XX AAR79166;

XX 29-DEC-1995 (first entry)

XX Human monocyte chemoattractant protein-1 receptor MCP-1RB.

XX Monocyte chemoattractant protein-1 receptor; MCR-1R; chemokine.

XX Homo sapiens.

XX Key' Location/Qualifiers

XX Domain 49..70

XX /label= transmembrane

XX Domain 80..700

XX /label= transmembrane

XX Domain 115..136

XX /label= transmembrane

XX Domain 154..178

FT Domain /label= transmembrane  
 FT 204...231  
 FT Domain /label= transmembrane  
 FT 244...268  
 FT Domain /label= transmembrane  
 FT 295...313  
 FT Region /label= transmembrane  
 FT 314...360  
 FT Domain /label= carboxyl tail  
 FT 1...48  
 FT /label= extracellular

W09519436-A.

20-JUL-1995.

11-JAN-1995; 95WO-US00476.

13-JAN-1994; 94US-0182962.

(REGC ) UNIV CALIFORNIA.

Charo I, Coughlin S;

WPI; 1995-263866/34.

N-PSDB; AAQ96298.

DNA encoding monocyte chemo-attractant protein-1 receptor - used partic.  
 for identifying antagonists and for treating diseases characterised by  
 monocyte infiltrates

Claim 2; Fig 2; 8app; English.

To identify and clone new members of the chemokine receptor gene  
 family, degenerate oligo primers were designed to correspond to the  
 conserved sequences R79167 in the second and R79168 in the third  
 transmembrane domains of the MIP-1alpha/RANTES receptor, the IL-8  
 receptors and the HUMSTG orphan receptor (GenBank Accession #99293.  
 The degenerate oligo incorporating EcoRI and XhoI sites at their 5',  
 ends are Q96299 and Q96300. Amplification of cDNA derived from MM6  
 cells with the primers yielded a number of PCR products. One cDNA  
 appeared to encode a novel protein. To obtain a full-length version  
 of this clone, a MM6 cDNA library was constructed in pROG and probed  
 with the PCR product. A 2.1 kb cDNA clone was obtained. Analysis of  
 additional clones in the MM6 cDNA library revealed a second  
 sequence that was identical to the 2.1 kb cDNA sequence first obtained  
 from the 5' UTR through the putative seventh transmembrane domain  
 but contained a different cytoplasmic tail. The second sequence  
 appears to represent alternative splicing of the carboxyl-terminal  
 tail of the MCP-1R protein. The two sequences are denoted MCP-1RA  
 and MCP-1RB (see Q96297/R79165 & Q96298/R79166). Active mature  
 MCP-1RA has a predicted mol. wt. of about 42,000 daltons. MCP-1RB  
 has a mol. wt. of about 41,000 daltons.

Sequence 360 AA;

Query Match 83.8%; Score 1651.5; DB 16; Length 360;  
 Best Local Similarity 95.5%; Pred. No. 5.4e-180;  
 Matches 319; Conservative 3; Mismatches 5; Indels 7; Gaps 3;

QY 1 MLSTSRFRIRNTNSESGETVTFDDYDYGAPCHKFDVKQIGALLPPLSLVIFGFGVGN 60  
 DB 1 MLSTSRFRIRNTNSESGETVTFDDYDYGAPCHKFDVKQIGALLPPLSLVIFGFGVGN 60  
 QY 61 MLVVLILNCKKLCITDIYLLNLAISDLFLITPLWAHSAANWVFGNAMCKLFTGLY 120  
 DB 61 MLVVLILNCKKLCITDIYLLNLAISDLFLITPLWAHSAANWVFGNAMCKLFTGLY 120  
 QY 121 HIGYEGGFIIFLLTIDRYLAIVHAFKARTVTFGVVTSVITLWLVAVFASVPGIIFTK 180  
 DB 121 HIGYEGGFIIFLLTIDRYLAIVHAFKARTVTFGVVTSVITLWLVAVFASVPGIIFTK 180  
 QY 181 CQKEDSVVCGPYFPRGWNNEFTIMRNILGLVPLLMVICYSGILKTLRCRNEKKRHR 240

DB 181 CQKEDSVVCGPYFPRGWNNEFTIMRNILGLVPLLMVICYSGILKTLRCRNEKKRHR 240  
 QY 241 AVRVIPTIMVYFLFWTPYINIVILLNTFQEFFGLSNCESTSQLDQATQVETLGMTHCCI 300  
 DB 241 AVRVIPTIMVYFLFWTPYINIVILLNTFQEFFGLSNCESTSQLDQATQVETLGMTHCCI 300  
 QY 301 NPIIYAFVGEKFR---SLF---HIALG-CRIAPL 327  
 DB 301 NPIIYAFVGEKFRYLSVFERKHITKRFCKQCPV 334

RESULT 5

AAW35833

ID AAW35833 standard; Protein; 360 AA.

XX AC AAW35833;

XX DT 27-FEB-1998 (first entry)

XX DE Human monocyte chemoattractant protein 1 receptor.

XX KW Human; MCP-1; monocyte chemoattractant protein; receptor; tumour;

XX KW inflammatory disease; viral; allergy; diabetes.

XX OS Homo sapiens.

XX PN JP09238688-A.

XX PD 16-SEP-1997.

XX PF 11-MAR-1996; 96JP-0053574.

XX PR 11-MAR-1996; 96JP-0053574.

XX PA (TAKE ) TAKEDA CHEM IND LTD.

XX DR WPI; 1997-508557/47.

XX DR N-PSDB; AAT96976.

XX PT DNA encoding human monocyte chemoattractant protein 1 receptor -  
 used to treat tumours and inflammatory, viral, infectious, allergic,  
 diabetic and central nervous system diseases

PS Disclosure; Page 12-14; 15pp; Japanese.

XX CC The present sequence represents human monocyte chemoattractant protein 1  
 (MCP-1) receptor protein. The MCP-1 receptor protein and encoding DNA  
 are used for the prevention and treatment of tumours and inflammatory,  
 viral, infectious, allergic, diabetic and central nervous system  
 diseases.

XX SQ Sequence 360 AA;

Query Match 83.8%; Score 1651.5; DB 18; Length 360;  
 Best Local Similarity 95.5%; Pred. No. 5.4e-180;  
 Matches 319; Conservative 3; Mismatches 5; Indels 7; Gaps 3;

QY 1 MLSTSRFRIRNTNSESGETVTFDDYDYGAPCHKFDVKQIGALLPPLSLVIFGFGVGN 60  
 DB 1 MLSTSRFRIRNTNSESGETVTFDDYDYGAPCHKFDVKQIGALLPPLSLVIFGFGVGN 60  
 QY 61 MLVVLILNCKKLCITDIYLLNLAISDLFLITPLWAHSAANWVFGNAMCKLFTGLY 120  
 DB 61 MLVVLILNCKKLCITDIYLLNLAISDLFLITPLWAHSAANWVFGNAMCKLFTGLY 120  
 QY 121 HIGYEGGFIIFLLTIDRYLAIVHAFKARTVTFGVVTSVITLWLVAVFASVPGIIFTK 180  
 DB 121 HIGYEGGFIIFLLTIDRYLAIVHAFKARTVTFGVVTSVITLWLVAVFASVPGIIFTK 180  
 QY 181 CQKEDSVVCGPYFPRGWNNEFTIMRNILGLVPLLMVICYSGILKTLRCRNEKKRHR 240  
 DB 181 CQKEDSVVCGPYFPRGWNNEFTIMRNILGLVPLLMVICYSGILKTLRCRNEKKRHR 240

QY 241 AVRVIPTIMIVYFLEWTPYNIIVILLNTFOEFFGLSNCESTSQLDOATQVTTGLMTHCCI 300  
 DB 241 AVRVIPTIMIVYFLEWTPYNIIVILLNTFOEFFGLSNCESTSQLDOATQVTTGLMTHCCI 300  
 QY 301 NPPIYAFVGEKFR---SLF---HIALG-CRIAPL 327  
 DB 301 NPPIYAFVGEKFRRLSVFFRKHKHTKRCCKQCPV 334  
 RESULT 6  
 AAG80108  
 ID AAG80108 standard; Protein; 360 AA.  
 XX AAG80108;  
 XX 17-JAN-2002 (first entry)  
 XX Human CCR2b protein.  
 DE Chemokine; tumour diagnosis; colorectal; prostatic; organ rejection;  
 KW inflammation; autoimmune disease; metastasis; bronchial asthma; lupus;  
 KW chronic bowel inflammation; rheumatoid arthritis; cytostatic;  
 KW antiinflammatory; antiasthmatic; immunosuppressive; dermatological;  
 KW antirheumatic; antiarthritic.  
 XX Homo sapiens.  
 OS WO200172830-A2.  
 PN 04-OCT-2001.  
 PD 02-APR-2001; 2001WO-EP03708.  
 PF 31-MAR-2000; 2000DE-1016013.  
 PR (IPFP-) IPF PHARM GMBH.  
 PA (FORS/) FORSMANN U.  
 XX Forssmann W, Adermann K, Heitland A, Spodsborg N;  
 PI WPI; 2001-626256/72.  
 DR Diagnostic agent containing two or more receptor-specific ligands,  
 PT useful for detecting tumors, inflammation etc., also therapeutic use of  
 PT ligand inhibitors  
 XX Disclosure; Page 9; 26pp; German.  
 PS This invention describes a novel diagnostic agent (A) comprising at least  
 XX two different ligands (I) for receptors (II) that are implicated in  
 CC disease. (A) are used for the diagnosis of tumors (especially colorectal  
 CC or prostatic), organ rejection, inflammation and autoimmune diseases.  
 CC Also inhibitors of (I) are used therapeutically against tumors (and their  
 CC metastases), inflammation (particularly bronchial asthma or chronic bowel  
 CC inflammation), or autoimmune diseases (rheumatoid arthritis or lupus),  
 CC where the (cardio)vascular, lymphatic, respiratory, nervous, digestive,  
 CC endocrine, motor or urogenital systems or skin are affected, and bone  
 CC marrow diseases. The products of the invention are chemokine derivatives  
 CC which have cytostatic, antiinflammatory, antiasthmatic, antiarthritic,  
 CC immunosuppressive, dermatological, antirheumatic, antiasthmatic.  
 CC Chemokines act on specific tumor and inflammatory cells through a  
 CC constellation of chemokine receptors (CR), which control migration and  
 CC proliferation of these cells. AAG80045-AAG80128 represent human chemokine  
 CC fragments used to illustrate the method of the invention.  
 XX Sequence 360 AA;  
 Query Match 83.8%; Score 1651.5; DB 22; Length 360;  
 Best Local Similarity 95.5%; Pred. No. 5.4e-180;  
 Matches 319; Conservative 3; Mismatches 5; Indels 7; Gaps 3;  
 QY 1 MLSTSRSRIRNTNESGEEVTFDDYDGAPCHKFDVKQTGAQLLPPLYSLVFIFGVGN 60

DB 1 MLSTSRSRIRNTNESGEEVTFDDYDGAPCHKFDVKQTGAQLLPPLYSLVFIFGVGN 60  
 QY 61 MLVVLILNCKKLKCLTDIYLLNLAISDLLFLITPLWAHSAANEWVFGNAMCKLFTGLY 120  
 DB 61 MLVVLILNCKKLKCLTDIYLLNLAISDLLFLITPLWAHSAANEWVFGNAMCKLFTGLY 120  
 QY 121 HIGYEGGIFFIILLIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180  
 DB 121 HIGYEGGIFFIILLIDRYLAIVHAVFALKARTVTFGVVTSVITWLVAVFASVPGIIFTK 180  
 QY 181 COKEDSVYVCGPYFPRGWNNTFTIMRNILGLVLPLLMIVICYSGLKTLRLCRNEKKRHR 240  
 DB 181 COKEDSVYVCGPYFPRGWNNTFTIMRNILGLVLPLLMIVICYSGLKTLRLCRNEKKRHR 240  
 QY 241 AVRVIPTIMIVYFLEWTPYNIIVILLNTFOEFFGLSNCESTSQLDOATQVTTGLMTHCCI 300  
 DB 241 AVRVIPTIMIVYFLEWTPYNIIVILLNTFOEFFGLSNCESTSQLDOATQVTTGLMTHCCI 300  
 QY 301 NPPIYAFVGEKFR---SLF---HIALG-CRIAPL 327  
 DB 301 NPPIYAFVGEKFRRLSVFFRKHKHTKRCCKQCPV 334  
 RESULT 7  
 AAU07614  
 ID AAU07614 standard; Protein; 360 AA.  
 XX AAU07614;  
 XX 04-DEC-2001 (first entry)  
 XX Human wild-type CCR2-64V polypeptide.  
 DE Human; CCR2 receptor; CCR2-64I; CCR2-64V; gene therapy; atherosclerosis;  
 KW single nucleotide polymorphism; hypercholesterolaemia.  
 KW Homo sapiens.  
 OS WO200162796-A1.  
 PN 30-AUG-2001.  
 PD 22-FEB-2001; 2001WO-GB00755.  
 PF 22-FEB-2000; 2000GB-0004183.  
 PR (SMIK) SMITHKLINE BEECHAM PLC.  
 PA Valdes AM, Groot PHE, Spurr NK;  
 PI WPI; 2001-550086/61.  
 DR N-PSDB; AAS12140.  
 XX Diagnosing atherosclerosis or susceptibility to atherosclerosis in a  
 PT subject, by determining a single nucleotide polymorphism in specific  
 PT codon of a polynucleotide encoding human CCR2 receptor in genome of the  
 PT subject.  
 XX Claim 1; Page 21; 28pp; English.  
 PS The invention relates to diagnosing atherosclerosis (or susceptibility  
 CC to) in a subject by determining expression or activity of the human  
 CC CCR2-64I polypeptide (a polymorphic variant form of the human CCR2  
 CC receptor) or the CCR2-64V polypeptide (human CCR2 receptor), by screening  
 CC for a single nucleotide polymorphism in codon 64 of the polynucleotide  
 CC encoding the CCR2 receptor. This results in production of CCR2-64I,  
 CC whereby polymorphic variants are associated with a lower incidence of  
 CC atherosclerosis. The presence or amount of CCR2-64I/V in a sample can  
 CC also be analysed. The sequences of the invention can be used for  
 CC predicting the response of a patient to drug treatment, for predicting  
 CC the disease outcome in a patient and also for the production of a  
 CC treatment for hypercholesterolaemia. The sequence represents the

CC wild-type receptor polypeptide CCR2-64V.  
 XX  
 SQ Sequence 360 AA;  
 Query Match 83.8%; Score 1651.5; DB 22; Length 360;  
 Best Local Similarity 95.5%; Pred. No. 5.4e-180;  
 Matches 319; Conservative 3; Mismatches 5; Indels 7; Gaps 3;  
 QY 1 MLSTSRFRIRNTNESGEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFFGVGN 60  
 DB 1 MLSTSRFRIRNTNESGEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFFGVGN 60  
 QY 61 MLVVLILINCKKLCITDIYLLNLAISDLFLITPLWAHSAANEWVFGNAMCKLFTGLY 120  
 DB 61 MLVVLILINCKKLCITDIYLLNLAISDLFLITPLWAHSAANEWVFGNAMCKLFTGLY 120  
 QY 121 HIGYFGGIFFIILLTIDRYLAIVHAFALKARTVTFGVTSVITLWVAFASVPGIIFTK 180  
 DB 121 HIGYFGGIFFIILLTIDRYLAIVHAFALKARTVTFGVTSVITLWVAFASVPGIIFTK 180  
 QY 181 COKEDSVYVCGPYFPRGWNFNHTIMRNILGLVPLIMVICSIGILKTLRCRNEKKRHR 240  
 DB 181 COKEDSVYVCGPYFPRGWNFNHTIMRNILGLVPLIMVICSIGILKTLRCRNEKKRHR 240  
 QY 241 AVRVIETIMVYFLEWTPYNIIVILLNTFOEFFGLSNCESTSOLDQATQVTTGLMTHCCI 300  
 DB 241 AVRVIETIMVYFLEWTPYNIIVILLNTFOEFFGLSNCESTSOLDQATQVTTGLMTHCCI 300  
 QY 301 NPIIYAFVGEKFR---SLF---HIALG-CRIAPL 327  
 DB 301 NPIIYAFVGEKFRYLSVFFRKHKITKRCQCPV 334  
 RESULT 8  
 AA007613  
 ID AA007613 standard; Protein; 360 AA.  
 AC AA007613;  
 DT 04-DEC-2001 (first entry)  
 DE Human CCR2-64I polymorphic variant polypeptide.  
 XX Human; CCR2 receptor; CCR2-64I; CCR2-64V; gene therapy; atherosclerosis;  
 KW single nucleotide polymorphism; hypercholesterolaemia.  
 XX Homo sapiens.  
 OS  
 Key Location/Qualifiers  
 Misc-difference 64  
 /note= "Wild-type Val is replaced by Ile"  
 XX WO200162796-A1.  
 PN 30-AUG-2001.  
 PD 22-FEB-2001; 2001WO-GB00755.  
 PF 22-FEB-2000; 2000GB-0004183.  
 PR (SMIK ) SMITHKLINE BEECHAM PLC.  
 XX Valdes AM, Groot PHE, Spurr NK;  
 PI WPI; 2001-550086/61.  
 DR N-PSDB; AAS12139.  
 XX  
 PT Diagnosing atherosclerosis or susceptibility to atherosclerosis in a  
 PT subject, by determining a single nucleotide polymorphism in specific  
 PT codon of a polynucleotide encoding human CCR2 receptor in genome of the  
 PT subject.  
 XX  
 PS Claim 1; Page 20; 28pp; English.

XX  
 CC The invention relates to diagnosing atherosclerosis (or susceptibility  
 CC to) in a subject by determining expression or activity of the human  
 CC CCR2-64I polypeptide (a polymorphic variant form of the human CCR2  
 CC receptor) or the CCR2-64V polypeptide (human CCR2 receptor), by screening  
 CC for a single nucleotide polymorphism in codon 64 of the polynucleotide  
 CC encoding the CCR2 receptor. This results in production of CCR2-64I,  
 CC whereby polymorphic variants are associated with a lower incidence of  
 CC atherosclerosis. The presence or amount of CCR2-64I/V in a sample can  
 CC also be analysed. The sequences of the invention can be used for  
 CC predicting the response of a patient to drug treatment, for predicting  
 CC the disease outcome in a patient and also for the production of a  
 CC treatment for hypercholesterolaemia. The sequence represents the  
 CC polymorphic variant polypeptide CCR2-64I.  
 XX  
 SQ Sequence 360 AA;

Query Match 83.8%; Score 1650.5; DB 22; Length 360;  
 Best Local Similarity 95.2%; Pred. No. 7.1e-180;  
 Matches 318; Conservative 4; Mismatches 5; Indels 7; Gaps 3;

QY 1 MLSTSRFRIRNTNESGEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFFGVGN 60  
 DB 1 MLSTSRFRIRNTNESGEVTTFFDYDYGAPCHKFDVKQIGAQLLPPLYSLVFIFFGVGN 60  
 QY 61 MLVVLILINCKKLCITDIYLLNLAISDLFLITPLWAHSAANEWVFGNAMCKLFTGLY 120  
 DB 61 MLVVLILINCKKLCITDIYLLNLAISDLFLITPLWAHSAANEWVFGNAMCKLFTGLY 120  
 QY 121 HIGYFGGIFFIILLTIDRYLAIVHAFALKARTVTFGVTSVITLWVAFASVPGIIFTK 180  
 DB 121 HIGYFGGIFFIILLTIDRYLAIVHAFALKARTVTFGVTSVITLWVAFASVPGIIFTK 180  
 QY 181 COKEDSVYVCGPYFPRGWNFNHTIMRNILGLVPLIMVICSIGILKTLRCRNEKKRHR 240  
 DB 181 COKEDSVYVCGPYFPRGWNFNHTIMRNILGLVPLIMVICSIGILKTLRCRNEKKRHR 240  
 QY 241 AVRVIETIMVYFLEWTPYNIIVILLNTFOEFFGLSNCESTSOLDQATQVTTGLMTHCCI 300  
 DB 241 AVRVIETIMVYFLEWTPYNIIVILLNTFOEFFGLSNCESTSOLDQATQVTTGLMTHCCI 300  
 QY 301 NPIIYAFVGEKFR---SLF---HIALG-CRIAPL 327  
 DB 301 NPIIYAFVGEKFRYLSVFFRKHKITKRCQCPV 334

RESULT 9  
 ABB56340  
 ID ABB56340 standard; Protein; 360 AA.  
 AC ABB56340;  
 XX 18-FEB-2002 (first entry)  
 DT Non-endogenous human GPCR protein, SEQ ID NO: 473.  
 DE Human; G protein-coupled receptor; GPCR; non-endogenous; mutant;  
 KW constitutively activated GPCR; agonist; disease.  
 XX Homo sapiens.  
 OS Synthetic.  
 XX WO200177172-A2.  
 PN 18-OCT-2001.  
 PD 05-APR-2001; 2001WO-US11098.  
 PF 07-APR-2000; 2000US-195747P.  
 PR (AREN-) ARENA PHARM INC.  
 XX Lehmann-Bruinsma K, Liaw CW, Lin I;

XX WPI; 2001-648759/74.  
DR N-PSDB; ABI97976.  
XX  
XX Identifying agonists of G protein-coupled receptors (GPCRs) for use in  
PT disease treatment, comprises contacting candidate compounds with  
PT versions of GPCRs -  
XX  
XX Claim 1; Page 274-275; 394pp; English.  
XX  
XX The invention relates to G protein-coupled receptors (GPCRs) for which  
CC the endogenous ligand has been identified. Non-endogenous  
CC constitutively activated versions of known GPCRs are used in the  
CC invention for the direct identification of candidate compounds as  
CC receptor agonists, inverse agonists or partial agonists. Such  
CC agonists are useful as therapeutic agents for diseases or disorders  
CC associated with GPCRs. The present sequence is a non-endogenous  
CC version of a known human GPCR.  
XX  
XX Sequence 360 AA;  
SQ  
Query Match 83.5%; Score 1645.5; DB 22; Length 360;  
Best Local Similarity 95.2%; Pred. No. 2.6e-179;  
Matches 318; Conservative 3; Mismatches 6; Indels 7; Gaps 3;  
QY 1 MLSTSRSEIRNTNSESSEVTTFFDYDYGAPCHKFDYKQIGAOQLPPLYSLVFIFGVGN 60  
DB 1 MLSTSRSEIRNTNSESSEVTTFFDYDYGAPCHKFDYKQIGAOQLPPLYSLVFIFGVGN 60  
QY 61 MLWVILINCKLKLTDIYLLNLAISDLFLITPLWAHSAANEVFGNAMCKLFTGLY 120  
DB 61 MLWVILINCKLKLTDIYLLNLAISDLFLITPLWAHSAANEVFGNAMCKLFTGLY 120  
QY 121 HIGYFGIFPIILLTIDRYLAIVHAFALKARTVTGVTSTVITLWVAVFASVPGIIFTK 180  
DB 121 HIGYFGIFPIILLTIDRYLAIVHAFALKARTVTGVTSTVITLWVAVFASVPGIIFTK 180  
QY 181 COKEDSVYVCGPYEPGRWNNFTIMRNILGLVPLLMVICYSGILKTLRCRNEKKRHR 240  
DB 181 COKEDSVYVCGPYEPGRWNNFTIMRNILGLVPLLMVICYSGILKTLRCRNEKKRHR 240  
QY 241 AVRVIPTIMVYFLEWTPYNIIVLLNTFOEFFGLSNCESTSQLDQATQVTTGLMTHCCI 300  
DB 241 AKRVIPTIMVYFLEWTPYNIIVLLNTFOEFFGLSNCESTSQLDQATQVTTGLMTHCCI 300  
QY 301 NPIIYAFVGEKFR---SLF---HIALG-CRIAPL 327  
DB 301 NPIIYAFVGEKFRYLSVFRKHITRCKQCPV 334  
RESULT 10  
AAG79089  
ID AAG79089 standard; Protein; 352 AA.  
XX  
XX AAG79089;  
XX  
XX 10-DEC-2001 (first entry)  
XX  
XX Amino acid sequence of human CCR5 protein.  
XX  
XX Human; receptor; DC-SIGN; dendritic cell; T lymphocyte; HIV;  
KW gp120; C-type lectin; ICAM3; HIV entry; T cell; macrophage;  
KW HIV infection; CCR5.  
XX  
XX Homo sapiens.  
XX  
XX WO200164752-A2.  
XX  
XX 07-SEP-2001.  
XX  
XX 28-FEB-2001; 2001WO-US06322.  
XX  
XX 02-MAR-2000; 2000US-0517605.

XX (UWNY ) UNIV NEW YORK STATE.  
PA (UWNY-) UNIV NIJMEGEN.  
XX  
XX Littman DR, Kwon D, Van Kooyk Y, Geijtenbeek T;  
XX WPI; 2001-602565/68.  
XX  
XX An antibody for the treatment or prevention of HIV-infection comprises  
PT a gp120 portion which binds to DC-SIGN or is exposed upon gp120 binding  
PT of DC-SIGN due to concomitant conformational change -  
XX  
XX Disclosure; Page 118-119; 131pp; English.  
XX  
XX The specification describes an antibody which is specific for an  
CC antigenic fragment of gp120. This antigenic fragment binds to DC-SIGN  
CC or is exposed upon gp120 binding of DC-SIGN due to concomitant  
CC conformational change. DC-SIGN is a receptor that is specifically  
CC expressed on dendritic cells and facilitates infection of T lymphocytes  
CC with HIV. DC-SIGN is identical to a HIV-1 gp120-binding C-type lectin.  
CC DC-SIGN binds ICAM-3 (which is expressed constitutively on T lymphocytes)  
CC with high affinity. The antibody of the invention inhibits the trans  
CC enhancement of HIV entry into a T cell or macrophage facilitated by  
CC dendritic cells. The antibody is useful to treat or prevent HIV  
CC infection. The present sequence represents a human CCR5 protein,  
CC which is a translocation promoting agent that interacts with CD4.  
CC This receptor functions in HIV-1 entry into cells.  
XX  
XX Sequence 352 AA;  
SQ  
Query Match 62.7%; Score 1236; DB 22; Length 352;  
Best Local Similarity 77.4%; Pred. No. 1.8e-132;  
Matches 236; Conservative 25; Mismatches 34; Indels 10; Gaps 2;  
QY 25 DYDYGAPCHKFDYKQIGAOQLPPLYSLVFIFGVGNMLVLLINCKLKLTDIYLLNL 84  
DB 13 DYDSEPCQKINVKQIAARLLPPLYSLVFIFGVGNMLVLLINCKLKLTDIYLLNL 72  
QY 85 AISDLLFLITPLWAHSAANEVFGNAMCKLFTGLYHIGYFGIFPIILLTIDRYLAIVH 144  
DB 73 AISDLLFLITPLWAHSAANEVFGNAMCKLFTGLYHIGYFGIFPIILLTIDRYLAIVH 132  
QY 145 AVFALKARTVTGVTSTVITLWVAVFASVPGIIFTKOKEDSVYVCGPYFP---RGWNN 200  
DB 133 AVFALKARTVTGVTSTVITLWVAVFASVPGIIFTRSQEGLHYTCSSHFPYSQYQFKN 192  
QY 201 FHTIMRNILGLVPLLMVICYSGILKTLRCRNEKKRHRVAVRVIPTIMVYFLEWTPYN 260  
DB 193 FQTLKIVILGLVPLLMVICYSGILKTLRCRNEKKRHRVAVRVIPTIMVYFLEWTPYN 252  
QY 261 IVILLNTFOEFFGLSNCESTSQLDQATQVTTGLMTHCCINPIIYAFVGEKFRSLF---- 316  
DB 253 IVLLNTFOEFFGLNCSNRLDQAMQVTTGLMTHCCINPIIYAFVGEKFRNLLVFF 312  
QY 317 --HIA 319  
DB 313 QKHIA 317  
RESULT 11  
AAW54037  
ID AAW54037 standard; Protein; 354 AA.  
XX  
XX AAW54037;  
XX  
XX 06-AUG-1998 (first entry)  
XX  
XX Mouse CC-CR5 protein.  
XX  
XX CC-CR5; chemokine receptor; mouse; human; transgenic mouse;  
KW HIV infection; T-cell mediated inflammation.  
XX  
XX Mus sp.  
OS

XX EP834564-A2.  
 XX 08-APR-1998.  
 XX 03-OCT-1997; 97EP-0307823.  
 XX 03-OCT-1996; 96US-0724984.  
 XX (SMIK) SMITHKLINE BEECHAM CORP.  
 XX Bergsma DJ, Brawner ME, Shabon U;  
 XX WPI; 1998-195463/18.  
 XX N-PSDB; AAV23989.  
 XX New isolated mouse chemokine receptor, CC-CR5 - used to develop  
 XX products for the study, diagnosis and treatment of HIV infection or  
 XX T-cell mediated inflammation  
 XX Claim 11; Fig 1; 27pp; English.  
 XX This sequence is the mouse CC-CR5 protein, is encoded by the DNA of the  
 XX invention. CC-CR5 is a chemokine receptor. Cells transfected with the  
 XX DNA can be cultivated and the expression product harvested. The DNA can  
 XX be knocked out and replaced with the human CC-CR5 gene, creating  
 XX transgenic mice which can be used in the study of HIV infection or T-cell  
 XX mediated inflammation. Transgenic mice could also be used to screen for  
 XX human CC-CR5 agonists or antagonists.  
 XX Sequence 354 AA;  
 XX Query Match 62.6%; Score 1234; DB 19; Length 354;  
 XX Best Local Similarity 74.7%; Pred. No. 3.1e-132;  
 XX Matches 230; Conservative 29; Mismatches 43; Indels 6; Gaps 2;  
 QY 17 GEEVTRFFDYDG--APCHKFDVKQIGAGLLPPLYSLVIFGFGVGNMVLVILINCKKLK 74  
 Db 5 GSVPYIYDYGMSAPCKINVKQIAAQLPPLYSLVIFGFGVGNMVLVILINCKKLK 64  
 QY 75 CLTDYLLNLAISDLFLTLPLWAHSAANEVFGNACKLFTGLYHIGYFGGIFILL 134  
 Db 65 SVTDIYLLNLAISDLFLTLPLWAHSAANEVFGNACKLFTGLYHIGYFGGIFILL 124  
 QY 135 TIDRYLAIVHAFKARTVTCGVTSVITLWVAFASVPGIIFTCQKEDSVYVCGPYF 194  
 Db 125 TIDRYLAIVHAFKARTVTCGVTSVITLWVAFASVPGIIFTCQKEDSVYVCGPYF 184  
 QY 195 PRG---WNNEHTIMRNILGLVPLLMVICYSGILKTLRCRNEKKRHRVAVIITMI 250  
 Db 185 PHTQVHFKSFOTLKWVILSLILPLVMICYSGILKTLRCRNEKKRHRVAVIITMI 244  
 QY 251 VYFLEWTPYNIIVLLNTFOEFGLSNCESTSLDQATQVETLGMTHCCINPIYAFVGE 310  
 Db 245 VYFLEWTPYNIIVLLNTFOEFGLSNCESTSLDQATQVETLGMTHCCINPIYAFVGE 304  
 QY 311 KFRSLPHI 318  
 Db 305 KFRSLSV 312  
 RESULT 12  
 ID AAW27407  
 XX AAW27407 standard; Protein; 352 AA.  
 AC AAW27407;  
 XX 14-APR-1998 (first entry)  
 XX Human CCR5.  
 XX Human Cys-Cys chemokine receptor 5; CCR5;  
 XX human immunodeficiency virus; type 1; type 2; HIV-1; HIV-2;

KW diagnosis; treatment; prevention;  
 KW inflammatory disease; rheumatoid arthritis; glomerulonephritis;  
 KW asthma; idiopathic pulmonary fibrosis; psoriasis; viral infection;  
 KW cancer; atherosclerosis; autoimmune disorder.  
 XX Homo sapiens.  
 XX WO9732019-A2.  
 XX 04-SEP-1997.  
 XX 28-FEB-1997; 97WO-BE00023.  
 XX 06-AUG-1996; 96EP-0870102.  
 XX 01-MAR-1996; 96EP-0870021.  
 XX (EURO-) EUROSREEN SA.  
 XX Libert F, Parmentier M, Samson M, Vassart G;  
 XX WPI; 1997-479829/44.  
 XX N-PSDB; AAT90117.  
 XX Active and inactive forms of human CC chemokine receptor CCR-5 -  
 XX useful to diagnose, prevent and/or treat inflammatory disorders,  
 XX autoimmune disease and viral infection  
 XX Claim 4; Fig 1b-c; 94pp; English.  
 XX The present sequence is human CC (Cys-Cys) chemokine receptor  
 XX 5 (CCR5), which is stimulated by MIP-1 alpha, MIP-1 beta or RANTES  
 XX chemokines, but not by monocyte chemoattractant protein 1 (MCP-1),  
 XX MCP-2, MCP-3, interleukin-8 (IL-8) or growth related gene product  
 XX alpha (GRO alpha) chemokines. Active CCR-5 is also a receptor of  
 XX human immunodeficiency virus type 1 or type 2 (HIV-1 or HIV-2).  
 XX CCR5 or its cDNA can be used to diagnose, treat and/or prevent  
 XX inflammatory diseases, e.g. rheumatoid arthritis,  
 XX glomerulonephritis, asthma, idiopathic pulmonary fibrosis and  
 XX psoriasis, viral infections, especially HIV-1 or HIV-2 infection,  
 XX cancer, atherosclerosis and autoimmune disorders.  
 XX Sequence 352 AA;  
 XX Query Match 62.1%; Score 1224; DB 18; Length 352;  
 XX Best Local Similarity 76.3%; Pred. No. 4.2e-131;  
 XX Matches 235; Conservative 27; Mismatches 34; Indels 12; Gaps 3;  
 QY 24 FDYDYG--GAPCHKFDVKQIGAGLLPPLYSLVIFGFGVGNMVLVILINCKKLK 81  
 Db 10 YDINYTSEPCOKINVKQIAAQLPPLYSLVIFGFGVGNMVLVILINCKKLK 69  
 QY 82 LNLAIISDLFLTLPLWAHSAANEVFGNACKLFTGLYHIGYFGGIFILLTIDRYLA 141  
 Db 70 LNLAIISDLFLTLPLWAHSAANEVFGNACKLFTGLYHIGYFGGIFILLTIDRYLA 129  
 QY 142 IVHAFKARTVTCGVTSVITLWVAFASVPGIIFTCQKEDSVYVCGPYF---RG 197  
 Db 130 VVHAFKARTVTCGVTSVITLWVAFASVPGIIFTCQKEDSVYVCGPYF 189  
 QY 198 WNEHTIMRNILGLVPLLMVICYSGILKTLRCRNEKKRHRVAVIITMIYFLFWT 257  
 Db 190 WNFOTLKIIVLGLVPLLMVICYSGILKTLRCRNEKKRHRVAVIITMIYFLFWA 249  
 QY 258 PYNIIVLLNTFOEFGLSNCESTSLDQATQVETLGMTHCCINPIYAFVGEKFRSLF 316  
 Db 250 PYNIIVLLNTFOEFGLSNCESTSLDQATQVETLGMTHCCINPIYAFVGEKFRSLF 309  
 QY 317 -----HIA 319  
 Db 310 VFFQKHIA 317  
 RESULT 13



AAW27123	Query Match	62.1%; Score 1224; DB 18; Length 352;
ID AAW27123 standard; Protein; 352 AA.	Best Local Similarity	76.3%; Pred. No. 4.2e-131;
XX	Matches 235; Conservative 27; Mismatches 34; Indels 12; Gaps 3;	
AC AAW27123;		
XX		
DT 14-DEC-1997 (first entry)		
XX		
DE Human chemokine receptor 88C.		
XX		
XX Chemokine receptor 88C; atherosclerosis; rheumatoid arthritis;		
KW tumour; asthma; viral infection; AIDS; inflammation;		
KW autoimmune disease; therapy; diagnosis; leukocyte trafficking;		
KW G protein coupled receptor; ligand; modulator; antibody; human.		
XX		
OS Homo sapiens.		
XX		
PH Key	Location/Qualifiers	
FT Domain	1..32	
FT	/label= Extracellular_domain	
FT	56..67	
FT	/label= Intracellular_domain	
FT	89..112	
FT	/label= Extracellular_domain	
FT	125..145	
FT	/label= Intracellular_domain	
FT	166..191	
FT	/label= Extracellular_domain	
FT	213..235	
FT	/label= Intracellular_domain	
FT	259..280	
FT	/label= Extracellular_domain	
FT	301..352	
FT	/label= Intracellular_domain	
XX		
PN WO9722698-A2.		
XX		
PD 26-JUN-1997.		
XX		
PF 20-DEC-1996; 96WO-US20759.		
XX		
PR 07-JUN-1996; 96US-0661393.		
PR 20-DEC-1995; 95US-0575967.		
XX		
PA (ICOS-) ICOS CORP.		
XX		
PI Gray PW, Raport CJ, Schweickart VL;		
XX		
DR WPI; 1997-341689/31.		
DR N-PSDB; AAT85161.		
XX		
PT New nucleic acid encoding chemokine receptors 88-2B and 88C - used		
PT to modulate leukocyte trafficking, e.g. for treatment of		
PT inflammation, tumours, viral infections, autoimmune diseases, etc.		
XX		
PS Claim 16; Page 47-48; 65pp; English.		
XX		
CC This polypeptide sequence comprises novel human chemokine receptor		
CC 88C, a G protein coupled receptor that is involved in leukocyte		
CC trafficking. Its amino sequence was deduced from a cDNA clone		
CC (AAT85161) isolated from a macrophage library. It shows 62% identity		
CC to CCR1. Chemokine receptor 88-2B (see AAW27124) has also been		
CC identified. 88C and 88-2B receptors and their polypeptide fragments		
CC can be produced in transformed host cells. The receptors, peptides		
CC comprising one or more of the extracellular or intracellular		
CC domains, and anti-receptor antibodies can be used to modulate		
CC receptor activities, particularly ligand and G protein binding, and		
CC are potentially potentially useful in the treatment of		
CC atherosclerosis, rheumatoid arthritis, tumours, asthma, viral		
CC infection, AIDS, inflammatory conditions, pathological immune		
CC response, abnormal haematopoietic processes etc.		
XX		
SQ Sequence 352 AA;		

QY 24 FDYD--GAPCHKFDVKQIGAOQLPPLYSLVFIQGVGNMVLVLLINCKKLCITDIYL 81		
DB 10 YDINYVTSEPCQKINVKQIAARLLPPLYSLVFIQGVGNMVLVLLINCKKLCITDIYL 69		
QY 82 LNAISDLELLTLPLWAHSAANWVFGNACMKLTGLYHIGYFGGIFILLITIDRYLA 141		
DB 70 LNAISDLELLTLPLWAHSAANWVFGNACMKLTGLYHIGYFGGIFILLITIDRYLA 129		
QY 142 IVHAFVALKARTVTCGVTSTVITLWVAFASVPGIITFCQKEDSVYVCGPYPP---RG 197		
DB 130 VVHAFVALKARTVTCGVTSTVITLWVAFASVPGIITFCQKEDSVYVCGPYPP---RG 189		
QY 198 WNNFHTIMRNILGLVPLIMVICYSGLIKTLRLCRNEKRRHRAVRVITIMIVYFLWT 257		
DB 190 WNNFHTIMRNILGLVPLIMVICYSGLIKTLRLCRNEKRRHRAVRVITIMIVYFLWT 249		
QY 258 PYNIVILLNTFOEFFGLSNCESTSDQATQVTTGLMTHCCINPIIYAFVGEKFRSLF- 316		
DB 250 PYNIVILLNTFOEFFGLSNCESTSDQATQVTTGLMTHCCINPIIYAFVGEKFRSLF- 309		
QY 317 -----HIA 319		
DB 310 VPFQKHIA 317		
RESULT 14		
AAW27125		
ID AAW27125 standard; Protein; 352 AA.		
XX		
AC AAW27125;		
XX		
DT 14-DEC-1997 (first entry)		
XX		
DE Macaque chemokine receptor 88C.		
XX		
KW Chemokine receptor 88C; atherosclerosis; rheumatoid arthritis;		
KW tumour; asthma; viral infection; AIDS; inflammation;		
KW autoimmune disease; therapy; diagnosis; leukocyte trafficking;		
KW G protein coupled receptor; ligand; modulator; antibody.		
XX		
OS Macaca sp.		
XX		
PN WO9722698-A2.		
XX		
PD 26-JUN-1997.		
XX		
PF 20-DEC-1996; 96WO-US20759.		
XX		
PR 07-JUN-1996; 96US-0661393.		
PR 20-DEC-1995; 95US-0575967.		
XX		
PA (ICOS-) ICOS CORP.		
XX		
PI Gray PW, Raport CJ, Schweickart VL;		
XX		
DR WPI; 1997-341689/31.		
DR N-PSDB; AAT85163.		
XX		
PT New nucleic acid encoding chemokine receptors 88-2B and 88C - used		
PT to modulate leukocyte trafficking, e.g. for treatment of		
PT inflammation, tumours, viral infections, autoimmune diseases, etc.		
XX		
PS Claim 36; Page 57-58; 65pp; English.		
XX		
CC This polypeptide sequence comprises macaque chemokine receptor 88C,		
CC a G protein coupled receptor that is involved in leukocyte		
CC trafficking. Its amino sequence was deduced from a 88C DNA		
CC (AAT85163) isolated by PCR amplification. It shows 97% identity to		
CC human 88C (AAW27123). 88C receptors and their polypeptide fragments		
CC		



Oy 317 -----HIA 319  
|||  
Db 310 VFFQKHIA 317

Search completed: May 19, 2003, 16:45:36  
Job time : 58.0395 secs

